

**What is claimed is**

1. Use of hydroxydiphenyl ether class of chemicals as exemplified by triclosan, or a pharmaceutically acceptable derivative thereof, to inhibit the growth of human malaria parasite (*Plasmodium Falciparum*), both *in vitro* and *in vivo*.
- 5 2. Any method of testing to confirm that the growth of human malaria parasite is inhibited by the use of hydroxydiphenyl ether class of chemicals, such as :
  - a. Examining smears of *in vitro* treated cultures for morphological features of the parasite as an indicator of growth ; or
  - b. Monitoring the incorporation of [<sup>35</sup>S] methionine in protein as a quantitative
- 10 indicator of the inhibition of the parasite growth.
3. A composition consisting essentially of hydroxydiphenyl ether class of chemicals as exemplified by triclosan or a pharmaceutically acceptable derivative thereof and a pharmaceutically acceptable adjuvant, or a diluent or a carrier, the composition being suitable for introduction in the blood by any method.
- 15 4. A composition as claimed in claim 3, for use in inhibiting parasite growth in an animal model eg. Mice, infected with *P. berghei*
5. A method of determining the growth of animal malaria parasite is inhibited by the injection as claimed in claim 4, said method comprising :
  - a. Monitoring the extent of inhibition of parasitemia by examining the smears of
  - 20 blood taken from an animal ; or
  - b. Determining the reduction in the mortality rate of the treated mice vs. untreated mice.
6. A method to determine the ability of any compound to inhibit the elongation in fatty acid synthesis in malaria parasite by demonstrating the inhibition of fatty acid
- 25 synthesis in the cell free fatty acid synthesis system of malaria parasite by estimating the amount of radioactively labeled malonyl-COA incorporated in fatty acids, or by analyzing the type of fatty acids synthesized by a chromatographic method.

WO 01/00138

PCT/IN99/00026

7. A method of inhibiting the elongation reaction of fatty acid synthesis in malaria parasite comprising incubation of hydroxydiphenyl ether with the said parasite, cultures, animal models, etc., or in cell free systems derived from any kind of malaria parasite or any preparation containing the enzyme FabI of malaria parasite as the test system.
8. A method as claimed in claim 6 or 7 wherein the sample is a malaria parasite of human or animal origin.
9. Any application that seeks to inhibit the growth of a malaria parasite by hydroxydiphenyl ether *in vivo* by any injectible route – be it intramuscular or intradermal or intraperitoneal or intravenous or intro-arterial or subcutaneous.
10. Any other class of compounds that inhibit the elongation of fatty acid synthesis in malaria parasite using the methods described above.
- add A2